VWZD Official File Cy

Maj Walker/jm

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[redacted]

Wash 1114

CLASSIFICATION CHANGED TO [redacted]
By authority of AFR 205-1
by [redacted]
8 APR 1966

[redacted]

[redacted]

[redacted] AFB CALIF

[redacted] DEV LOS ANGELES CALIF

[redacted] /SATELLITE/ SUNNYVALE CALIF

[redacted] & SPACE COMPANY SUNNYVALE CALIF

LOCKHEED [redacted] & SPACE COMPANY VANDENBERG AFB CALIF /COURIER/ ZIEK

DOUGLAS AIRCRAFT COMPANY VANDENBERG AFB CALIF /COURIER/ ZIEK

INFO: 1 STRAT AEROSPACE DIV VANDENBERG AFB CALIF /COURIER/ ZIEK

[redacted] PATRICK AFB FLORIDA

[redacted]

SEC FOR SECD SECCLN [redacted] FOR COL MOORE SECCLN LMSC/ SUNNYVALE FOR TYPICA-F /E.J. DAUPHIN/ SECCLN LMSC/VAFB FOR DEPT 55-44 SECCLN LMSC/VAFB FOR MR. SECKMAN. INFO CLN 1 STRAT AEROSPACE DIV FOR COMMAND POST AND DOOPA SECCLN

17 SEP 2000 61

DOWNGRADED AT 3 YEAR INTERVALS; DECLASSIFIED AFTER 12 YEARS DOD DIR 5200.10

OFFICE SYMBOL	VWZD	[redacted]			
NAME (SIGNATURE)					
DATE					

AFBMD Form 17
1 Nov 59

COORDINATION SHEET

Replaces AFBMD Form 6, 1 Jun 59

[redacted]

[redacted]

SUBJECT TO VANGUARD [redacted]

SOUTH FOR COL WEIHAL. SUBJECT CLM FINAL REPORT ON THE LAUNCHING OF RECOVERER 36 ABOUT SEPT FIRST0/.

1. RECOVERER 36 CONSISTING OF THOR BOOSTER NO. 326 AND AGENA B VEHICLE NO. 1154 WAS LAUNCHED FROM VAFB COMPLEX 75-1, PAD 1, AT 1400 GCT 14.3 SEC ON 17 SEP 61. THE PRIMARY LAUNCH OBJECTIVE, TO PLACE THE RECOVERER SATELLITE WITH PAYLOAD IN A NEAR-POLAR ORBIT, WAS ACCOMPLISHED. RADARS FIXED THE VEHICLE PASSING EACH GAVE AN INJECTION ALTITUDE OF 101 NM WITH MINOR, AN INJECTION VELOCITY OF APPROXIMATELY 25,800 FPS, AND AN INJECTION FLIGHT PATH ANGLE OF ABOUT 0 DEGREES. TRACKING STATIONS AT KODIAK AND HAWAII HAVE CONFIRMED ORBITAL STATUS THROUGH RECEPTION OF TELEMETRY AND RADAR REACQUISITIONS ON THE FIRST ORBITAL PASS.

2. FOLLOWING IS A REVIEW SHOWING THAT LAUNCH/FLIGHT OBJECTIVES WERE ACHIEVED AS FOLLOWS CLM/REFERENCE DETAILED TEST OBJECTIVES, LAUNCH 44-59, SECTION 2/.

A. BOOSTER PORTION OBJECTIVE ACHIEVED.

VEHICLE HEADING WAS WITHIN 0.4 DEG., FLIGHT PATH ANGLE WAS WITHIN 4 DEGREES, AND VELOCITY WAS WITHIN 200 FPS OF THE NOMINAL VALUES AT BOOSTER CUTOFF. BOOSTER STEERING AND [redacted]

VWED [redacted]

[redacted]

[redacted]

[illegible] [illegible] [illegible] AND CAME

[illegible] [illegible] WERE GENERATED AND TRANSMITTED SATISFAC-
TORILY BY THE VEHICLE GUIDANCE SYSTEM, AND VEHICLE RESPONSE
TO THE GUIDANCE APPEARS TO HAVE BEEN PROPER. [illegible]
OCCURRED AT TIME [illegible] SECONDS AS A RESULT OF PROPELLANT
DEPLETION, APPROXIMATELY [illegible] SECONDS BEFORE THE [illegible]
[illegible] COMMAND WAS RECEIVED BY THE VEHICLE. VEHICLE
[illegible] [illegible] LASTED [illegible] SECONDS WITH VERNIER [illegible]-
[illegible] AT TIME [illegible] SECONDS. SEPARATION WAS INITIATED BY A
[illegible] [illegible] [illegible] AT TIME [illegible] SECONDS.

B. AGENA AIRFRAME AND ADAPTER-OBJECTIVE ACHIEVED.

NO EVIDENCE OF STRUCTURAL PROBLEMS IN THE AGENA AIR-
FRAME OR ADAPTER HAS BEEN NOTED.

C. AGENA PROPULSION SYSTEM-OBJECTIVE ACHIEVED.

THE [illegible] [illegible] SATISFACTORILY PROVIDED THE THRUST
NECESSARY [illegible]. AGENA ENGINE IGNITION OCCURRED
IN A NORMAL MANNER AT T [illegible] SECONDS AND THE ENGINE
OPERATED SATISFACTORILY FOR [illegible] SECONDS. ENGINE SHUT-
DOWN OCCURRED AT T [illegible] SECONDS ON ACCELERATOR
COMMAND. THE ACCELERATOR DATA SHOW A MEASURED VELOCITY [redacted]
GAIN OF [illegible] [illegible] [illegible]. THE IMPULSE
PROVIDED BY THE AGENA ENGINE WAS SUFFICIENT TO GIVE THE

[redacted]

TWX D

[redacted]

[illegible] WAS VANDENBERG AFB CALIF [redacted]

VEHICLE ORBITAL VELOCITY AT THE FLIGHT INJECTION ALTITUDE.

D. AGENA ELECTRICAL POWER SYSTEM-OBJECTIVE ACHIEVED.

NO EVIDENCE OF AGENA ELECTRICAL POWER SYSTEM PROBLEMS HAS BEEN NOTED.

E. AGENA GUIDANCE AND FLIGHT CONTROL SYSTEM-OBJECTIVE ACHIEVED.

THE AGENA GUIDANCE SYSTEM RESPONDED PROPERLY TO A 4.[illegible] SECOND TIME-TO-FIRE CORRECTION AND A 2.64 SECOND VELOCITY-TO-BE-GAINED CORRECTION COMMANDED BY THE GROUND GUIDANCE SYSTEM. VEHICLE ATTITUDE APPEARS TO HAVE BEEN CONTROLLED SATISFACTORILY DURING THE COAST PHASE AND THE ORBITAL BOOST PHASE, AND CONTROL-GAS EXPENDITURE WAS NORMAL DURING BOTH OF THESE PERIODS. ENGINE SHUTDOWN WAS COMMANDED SATISFACTORILY BY THE INTEGRATOR, AND THE D-TIMER PROGRAMMER CONTROLLED THE TIME AND SEQUENCE OF ALL PROGRAMMED EVENTS THAT WERE SCHEDULED TO OCCUR PRIOR TO LOSS OF TELEMETRY DATA AT VTS.

F. AGENA SPACE COMMUNICATIONS SYSTEM-OBJECTIVE ACHIEVED.

OPERATION OF THE ACQUISITION BEACON AND THE RADAR BEACON WAS SATISFACTORY. VTS TRACKED THE ACQUISITION

[redacted]

VWXB [redacted]

[redacted]

[redacted] TEST VEHICLE AFS 6[redacted]

[redacted] TRACKED FROM LIFTOFF TO T PLUS [redacted] SECONDS AND THE [redacted]

[redacted] TRACKED FROM LIFTOFF TO T PLUS [redacted] SECONDS.

C. [redacted] OBJECTIVE ACHIEVED.

[redacted] AND CONTAMINATION CHECKOUT WAS SATISFACTORILY ACCOMPLISHED DURING THE FIR LAUNCH COUNTDOWN AT THE [redacted] ON 17 SEP 61. PROBLEMS WERE ENCOUNTERED WITH AN AMPLIFIER IN THE PAYLOAD SKIN TEMPERATURE SIMULATING SYSTEM AND WITH ONE OF THE ARENA TEST PANEL. THESE PROBLEMS WERE RESOLVED DURING THE COUNTDOWN SATISFACTORILY WITHOUT CAUSING A HOLD INCIDENTLY.

E. [redacted] OBJECTIVE ACHIEVED.

THE ARENA TELEMETRY SIGNAL WAS RECEIVED AND RECORDED AT [redacted] FROM LIFTOFF TO T PLUS 364 SECONDS AND GOOD FLIGHT DATA WERE OBTAINED FOR THE PERIOD FROM LIFTOFF TO T PLUS 343 SECONDS. THE FPS VERIDAT RADAR PRODUCED GOOD ANALOG AND DIGITAL DATA RECORDS FOR THE PERIOD FROM LIFTOFF TO LOSS OF TRACK AT T PLUS [redacted] SECONDS. STATION COMMUNICATIONS DURING THE LAUNCH OPERATION WERE ADEQUATE.

3. FIR LAUNCH CONDITIONS

THE CONDITIONS STATED AT HSB TST ON 17 SEP 61 AND PRO-CEEDED TO LIFTOFF WERE NO HOLDS.

[redacted]

VWZD

[redacted]

[redacted]

4. BAD DAMAGE

DAMAGE TO THE [redacted] PATTERN ON PAD 1 WAS

NORMAL, AND THE HEAD TORQUE IS EXPECTED TO BE SIMILAR TO

THAT AFTER SERVICE LANDINGS FROM THE PAD.

SCR#4.

[redacted]

[redacted]

[redacted]